

REMARKS

Claims 1-9 have been canceled. Claims 10, 11, 14, and 21 have been amended. Claims 24-28 have been added. Claims 10-28 therefore are pending and are presented for review. Favorable reconsideration and allowance are requested in light of the foregoing amendments and the remarks which follow.

1. Formal Drawings

Formal drawings are submitted under separate cover to the Official Draftsman. Entry of the drawings is respectfully requested.

2. Claim Objections

Claim 1 has been objected to for containing a minor informality. Claims 1-9 have been canceled, without disclaimer or prejudice, hence obviating this objection. Other informalities noted in the specification and claims upon a review thereof have been corrected.

3. Rejections based on Prior Art

Claims 1-7 and 9-23 stand rejected under 35 USC 102(b) as being anticipated by Rijkers. Claim 8 stands rejected under 35 USC 103(a) as being obvious over Rijkers in view of Shoup. The rejections of claims 1-9 have been obviated by the cancellation of claims 1-9. The rejection of the remaining claims, insofar as they may be considered to

be applicable against claims 10 and 21, which have been amended to recite components and operation of a standard wet screed having a vibration restraint of the claimed type, are respectfully traversed.

a. Recapitulation of Invention¹

Portable vibratory “wet screed” machines can considerably reduce the labor required to level freshly poured concrete. The screed includes a screed plate that rests on the surface to be leveled and that is excited to vibrate by a vibratory exciter assembly, typically including an eccentric. The exciter assembly is driven by an engine coupled to a drive shaft. The engine is clamped to an engine mount that surrounds the drive shaft and that is supported on a frame mounted on the screed plate. The clamp provides only limited restraint to the engine and drive shaft relative to the vibratory assembly along the x-y reference plane. Vibrations generated upon screed operation by the eccentric vibratory assembly therefore are transmitted to the clamp point and generate severe vibrations on the engine about all three (x, y, z) axes. The vibrations are known to cause failures not only in the clutch housing, but also of the handle assembly, the fuel tank, oil seals, the engine block, etc. The vibrations in the z-axis, i.e., in an axis parallel to the axis of the drive shaft, are the most destructive.

¹This Section 3a is intended to provide the Examiner with some background information on the state of the art and applicant's contribution to it. It is *not* intended to distinguish specific claim for the prior art. That task is performed in Section 3b below.

In accordance with an embodiment of the invention, vibrations transmitted to the engine of a portable vibratory screed in a direction parallel to the drive shaft are considerably reduced through the use of a vibration restraint that provides additional support beyond that provided by the clamp assembly of the engine mount because the restraint is spaced from the engine mount and couples the engine housing to a reference structure. In the disclosed embodiment, the vibration restraint 20 comprises a plate 150 bolted to the engine housing 55 at its upper end and to a reference structure at its lower end. In the preferred embodiment, the reference structure comprises a plate 95 of the frame 35. The plate 150 is spaced from the engine mount.

The results are dramatic. Tests show that engines of a portable wet screeds lacking a vibration restraint exhibit, on average, an operating life of 35 to 50 hours. In comparison, engines of corresponding portable vibratory wet screeds having the vibration restraint 20 typically demonstrated operational lives of 175 to 400 hours or even more. Forty percent of the engines of the sampled machines exhibited operating lives that exceeded 200 hours. Several of the tests, exceeding 400 hours, ended without failures.

b. Traversal of Rejection

Rijkers lacks anything that remotely resembles the claimed vibration restraint. In fact, its entire screed is configured differently than the claimed screed. Rather than employing an engine mount and a separate vibration restraint, Rijkers employs a clamping mechanism 9 having a body 10 that is supported on the screed blade or “board”

2 and that supports the engine 8 and an eccentric 7. The eccentric 7 is mounted in a cavity or seat 11 of the body 10. The body 10 of the clamping mechanism 9 is mounted on the screed board 2 by two legs 32 and 33 formed integrally with the body 10. The body 10 is formed from two split portions 31 that each form $\frac{1}{2}$ the seat 11 and that, in combination, present a common side face on which the engine 8 is mounted. No vibration restraint is disclosed.

The Examiner contends that element 31 corresponds to the claimed engine mount, that the component 10 corresponds to the claimed vibration restraint, and that the element 22 corresponds to the claimed reference structure, respectively. None of these positions is tenable.

- Body 10 comprises the entire upper portion of the clamping mechanism 9. It is formed from a split-apart cylindrical part 10 supported on the legs 32 and 33. Col. 3, lines 23-26. Since each part 31 forms $\frac{1}{2}$ of the body 10, the combination 10 of these parts cannot be considered a separate restraint from the claimed engine mount. In addition, element 10 cannot be said to be spaced from the element 31 as claimed.
- The engine is mounted on *both* parts 31. Hence, neither of the parts 31, by itself, could be considered an engine mount.
- Element 22 comprises a mounting plate for the handle 4. It is mounted on the clamping mechanism 9 and isolated from vibrations in the rest of the assembly by shock mounts 27. Since the mounting plate 22 plays no role in

isolating vibrations in the engine 8, it cannot be considered a reference structure that plays a role in reducing vibrations in the engine 8.

In light of the foregoing, applicant submits that claim 10 is in no way anticipated by Rijkers and that the rejection under 35 USC 102(b) should be withdrawn. Claims 11-20 incorporate the limitations of claim 10 by reference and, accordingly, are allowable for at least the same reasons that claim 10 are allowable. For instance:

- With respect to claims 11 and claims dependent therefrom, plate 22 is mounted on the clamping mechanism, *not* vice versa. Hence the engine “mount” 31 is not supported on the plate 22.
- Regarding claim 13, the plate 22 is flat and thus lacks a portion that is contoured to at least generally match the shape of the engine housing.
- The Examiner has failed to provide *any* rational basis for ignoring the evidence cited in the specification and explaining why a conventional wet screed, of which Rijkers includes all the undesirable characteristics mentioned above and in the Background section of the application, is capable of meeting the claimed longevity requirements of claims 15-19. That evidence, being submitted under declaration, *must* be taken at face value unless the Examiner has some rational basis for doubting it. *In re Chu*, 66 F.3d 292 (Fed. Cir. 1995).

Claim 21, as amended to recite the structure of the claimed vibration restraint with greater specificity, is allowable for at least generally the same reasons that claim 10 is allowable.

4. **New Claims, Allowable Subject Matter, and Conclusions**

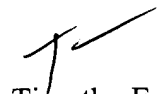
New claims 24-27 depend from claims 10 and 21 and recite additional structural and functional aspects of the invention which are not disclosed by Rijkers. New independent claim 28 contains all of the limitations of claim 10 and various claims dependent therefrom and is also believed to be allowable.

Enclosed is a check for \$1,020 for the government filing fee by a *large* entity for a 3-month extension of time, which applicant hereby requests. No additional fee is believed to be payable with this communication. Nevertheless, should the Examiner consider any other fees to be payable in conjunction with this or any future communication, the Director is authorized to direct payment of such fees, or credit any overpayment to Deposit Account No. 50-1170.

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The Examiner is invited to contact the undersigned by telephone if it would help expedite matters.

Respectfully submitted,



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